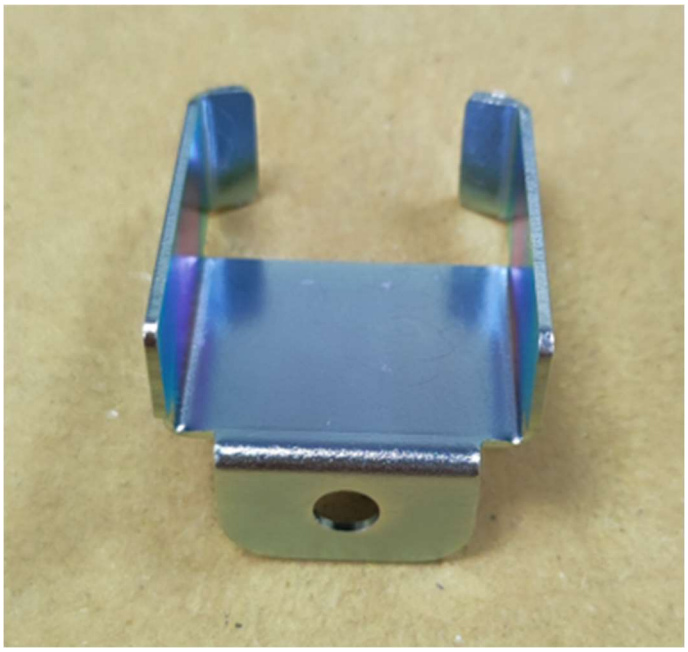
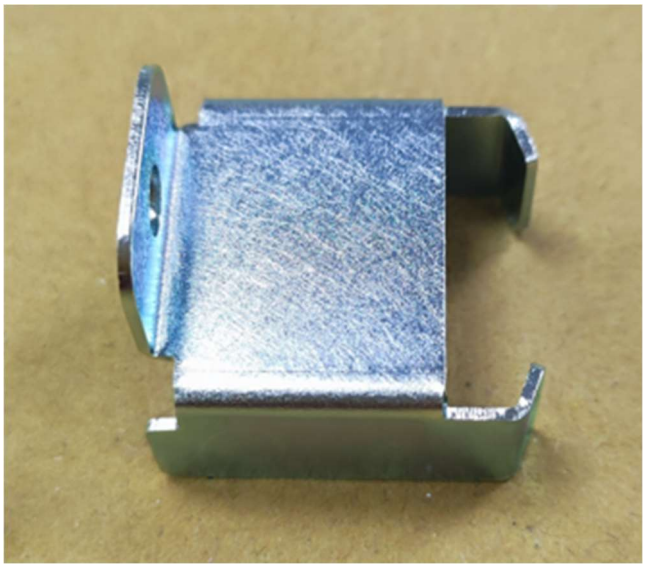
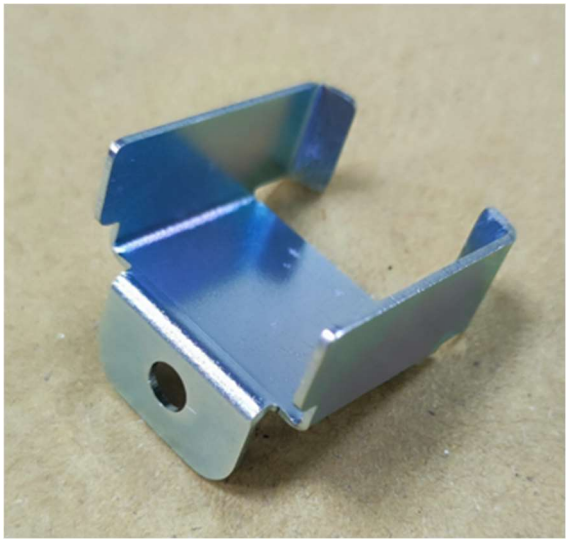
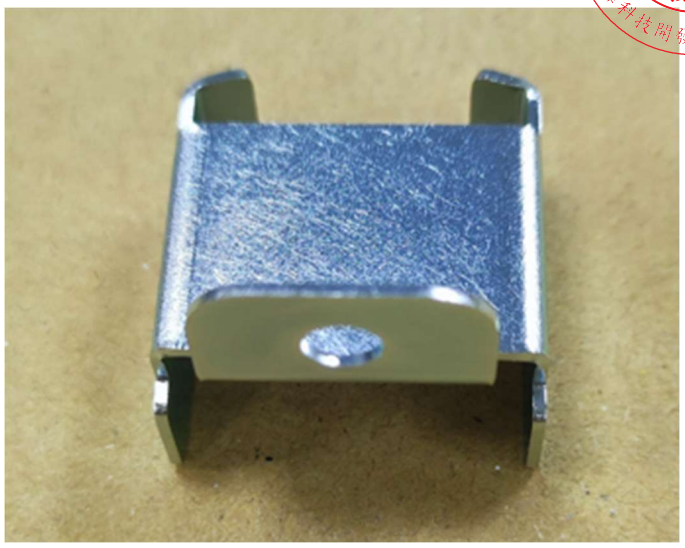




設計驗證
工程課
2024-07-15
發行

雄業實業股份有限公司

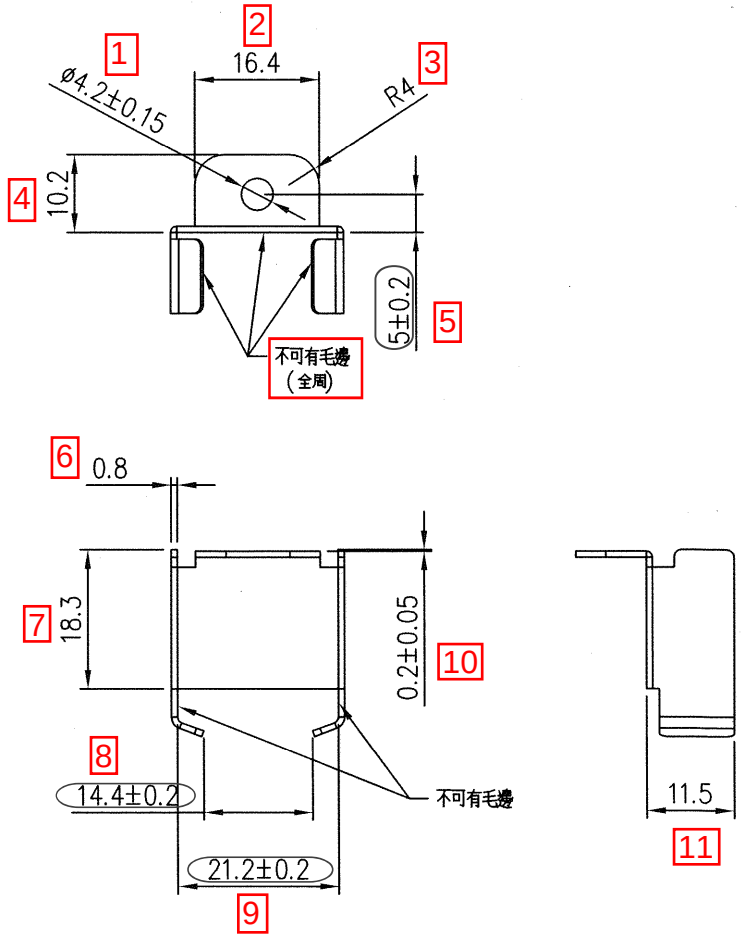
樣 品 承 認 書



客　　戶：	鈺緯科技
料　　號：	3MD125ME020 (M2718)
品　　名：	HDMI HOLDING PLATE(TTL)
日　　期：	113/7/8
送樣數量：	1 PCS



REV.	DATE	DESCRIPTION	BY	ARRD



設計驗證
工程課
2024-07-15
發行
鈺鑽科技開發股份有限公司

2. 檢驗規範文件編號: QWI－014

NOTE: 1. 尺寸檢驗及毛邊, 參照承認樣品

THIRD ANGLE PROJECTION	UNITS : mm	SCALE : 1 / 1	SHEET : 1 / 1	MODEL NO.: 21.5"
	MATERIAL :SPCC 0.8t		TREATMENT : Zn Plated	
DSGD by JoeHuang	2017/01/12	PART NAME: HDMI HOLDING PLATE(TTL)		
APPD by		PART NO.: 3MD125ME020		VER. 0
APPD No. : M2718	FILE NAME : 3MD125ME020	DIVA Laboratories ,Ltd.		

Test Result	

DIVA FAI DATA SHEET

Part Number :	3MD125ME020 (M2718)	Supplier :	雄業	Date:	2024/7/8
Part Description :				Cavity / Tool # :	
Revision :	0	Material Spec:	SPCC 0.8t	Inspector:	李宥廷

MOI-Method of inspection abbreviation: HG = Height gauge, MIC = Micrometer, DC = Dial Caliper, P = Protractor, OC = Optical Comparator, CG = Checking Gauge, CMM = Coordinate Measuring Machine, OMM = Optical Coordinate Measuring Machine, HT = Hardness Trester, TG = Thickness Gauge, VIS = V D

OTHER:

DRAWING SPECIFICATIONS						INSPECTION RESULTS							INSPECTION ANALYSIS					
						Sample Number							% Tolerance		Alert/Rej		Supplier	RD Engineering
ITEM	LOCATION	NOMINAL	+TOL	-TOL	Method	1	2	3	1	2	3	Mean	UPPER	LOWER	HIGH	LOW	Remarks	Disposition
1	1	4.20	0.15	0.15		**4.190**	**4.200**	**4.200**	***-0.010***	***0.000***	***0.000***	***4.197***	**0%**	**7%**				
2	2	16.40	0.20	0.20		**16.400**	**16.390**	**16.400**	***0.000***	***-0.010***	***0.000***	***16.397***	**0%**	**5%**				
3	3	4.00	0.15	0.15		**4.000**	**3.980**	**4.020**	***0.000***	***-0.020***	***0.020***	***4.000***	**13%**	**13%**				
4	4	10.20	0.15	0.15		**10.210**	**10.200**	**10.200**	***0.010***	***0.000***	***0.000***	***10.203***	**7%**	**0%**				
5	5	5.00	0.20	0.20		**4.980**	**5.000**	**5.000**	***-0.020***	***0.000***	***0.000***	***4.993***	**0%**	**10%**				
6	6	0.80	0.10	0.10		**0.780**	**0.800**	**0.780**	***-0.020***	***0.000***	***-0.020***	***0.787***	**0%**	**20%**				
7	7	18.30	0.15	0.15		**18.300**	**18.290**	**18.300**	***0.000***	***-0.010***	***0.000***	***18.297***	**0%**	**7%**				
8	8	14.40	0.20	0.20		**14.400**	**14.380**	**14.380**	***0.000***	***-0.020***	***-0.020***	***14.387***	**0%**	**10%**				
9	9	21.20	0.20	0.20		**21.200**	**21.190**	**21.220**	***0.000***	***-0.010***	***0.020***	***21.203***	**10%**	**5%**				
10	10	0.20	0.05	0.05		**0.200**	**0.180**	**0.180**	***0.000***	***-0.020***	***-0.020***	***0.187***	**0%**	**40%**				
11	11	11.50	0.15	0.15		**11.520**	**11.490**	**11.520**	***0.020***	***-0.010***	***0.020***	***11.510***	**13%**	**7%**				
12		以下空白																
13																		
14																		
15																		
16																		
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Instructions:
1.Inspector mest fillout the yellow area.
2. The table will automatically calculate the data in green area.

CHINA STEEL 中鋼公司

安全資料表(SDS)

一、物品與廠商資料

物品名稱：冷軋鋼捲(Cold Rolled Steel Coils & Sheets)	
物品編號：	
製造商或供應商名稱、地址及電話：中國鋼鐵股份有限公司 812 高雄市小港區中鋼路 1 號	
緊急聯絡電話：(07)802-1111	傳真電話：(07)8051292

二、危害辨識資料

重要物理性及化學性危害與效應	1.與強酸接觸會起反應產生可燃性氫氣。 2.銲接或加熱會產生氧化鐵燻煙。

三、成分辨識資料

純物質：

物品中（英）文名稱：鋼(STEEL)			
同義名稱：			
化學文摘社登記號碼(CAS.NO.)：			
鐵 Iron	7439-89-6	錳 Manganese	7439-96-5
碳 Carbon	7440-44-0		
危害物質成分(成分百分比)：鐵>96%			
危害物質成分之中（英）文名稱	濃度或濃度範圍(成分百分比)	危害物質分類及圖式	
鐵(Fe)	>96%		
碳(C)	<1.5%		
錳(Mn)	<1.5%		
表面處理(Surface Treatments):本產品表面塗佈之物質包括下列作為防鏽處理之化學物質及特定產品專用金屬成分			
危害物質成分之中（英）文名稱	濃度或濃度範圍(成分百分比)	危害物質分類及圖式	
礦物油(Mineral Oil)	200~1500 g/m2		
合成酸酯(Synthetic Ester)	<200 g/m2		

四、急救措施

不同暴露途徑之急救方法：

- 吸入：本產品形態食入之可能性相當低。
- 眼睛接觸：立即將眼皮撐開，用大量水沖洗 15 分鐘。本產品形態進入眼睛之可能性相當低。
- 皮膚接觸：立即用肥皂和水清洗，本產品形態造成刺激皮膚之可能性相當低。

五、滅火措施

適用滅火劑：使用適合週遭火災之滅火器。

滅火時可能遭遇之特殊危害：1.此物若以大塊型式存在時，不可燃。
2.若以微細粉末存在時，遇火源有引起爆炸的危險。
3.本產品若熔化或燃燒，則會產生毒性或刺激性蒸汽，請使用個人呼吸防護器具。

六、洩漏處理方法

本產品為固體狀不適用。

七、安全處置與儲存方法

一般使用：本產品邊緣為尖銳薄片或捲片，進行各項作業必須使用個人防護器具，所有員工必須接受訓練以安全地進行各項作業。

儲存建議：建議儲存於可防止實體破壞、濕氣、直接日曬之場所。

八、暴露預防措施

重要成分	化學文摘社登記號碼 CAS NO.	重量比例 (%)	暴露限制	
			OSHA PEL	ACGIH TLV
鐵 Iron	7439-89-6	96	未建立	未建立
表面處理(Surface Treatments):本產品表面塗佈之物質包括下列作為防鏽處理之化學物質及特定產品專用金屬成分				
礦物油 (Mineral Oil)	--	200~1500 g/m^2	未建立	未建立
合成酸酯 (Synthetic Ester)	--	<200 g/m^2	未建立	未建立

工程控制：

1. 在進行燃燒、銅鑄、切割、研磨、打光、銲接或其他機械加工時，應使用機械通裝置。
2. 若在進行機械加工時，有產生粉塵或微粒狀物質，建議採用局部及一般通風裝置以預防過多的危害物質暴露。

個人防護設備：

眼睛防護：在進行本產品作業時請穿戴化學安全護目鏡。

呼吸防護：如需符合暴露標準 在進行切割、研磨、打光或銲接等機械加工作業時，應使用自攜式呼吸防護具。

皮膚防護：1.使用皮革或防割傷手套以免被尖銳薄片或捲片割傷。
2.使用防滲透手套以免被皮膚接觸表面油污。

身體防護：1.連身式防護衣。
2.工作鞋。
3.工作區要有淋浴/沖眼設備。

衛生措施： 1.工作場所嚴禁飲用、抽煙或飲食。
2.處理此物後，須徹底洗手。

九、物理及化學性質

物質狀態：固體	形狀：薄片或捲片
顏色：金屬性灰色	氣味：無味
pH 值：不適用	閃火點：不適用
熔解溫度：1535℃	
自燃溫度：不適用	爆炸界限：不適用
密度：7.5 - 8.0（水=1）	溶解度：不溶於水
熔點/凝固點：不適用	揮發速率：不適用
易燃性(固態、氣態）：不適用	分配係數(正辛醇/水）：不適用

十、安定性及反應性

安定性：正常狀況下安定
應避免之狀況：濕氣及腐蝕性物質會氧化本物質
應避免之物質：酸類、A 類及 B 類爆炸物、強性氧化物、腐蝕劑
危害分解物：引燃或熔解可能會產生有產生毒性或刺激性蒸汽

十一、毒性資料

急毒性(Acute Effects)：

鐵(Iron) LD50(測試動物暴露途徑)：30 g/kg(大鼠，吞食)

過度暴露效應(Symptoms of Overexposure)：

鐵(Iron Oxide)：過度暴露或重覆暴露於高濃度狀況下，可能造成塵肺病 pneumoconiosis，吸入氧化鐵可能會刺激眼睛、鼻子及喉嚨。
矽(Silicon): 主要為厭惡性粉塵(Nuisance Dust)，可能會刺激眼睛及黏液薄膜(Mucous Membranes)，本產品型態無此危害。

十二、生態資料

現有資料無影響生態之考量

十三、廢棄處置方法

廢棄處置方法：
1.參考相關法規處理。
2.相關法規可能會限制金屬性廢棄物之處置。
3.建議採取回收金屬性廢棄物。

十四、運送資料

無特殊運送方法

十五、法規資料

適用法規：
職業安全衛生設施規則
危害性化學品標識及通識規則
勞工作業環境空氣中有害物容許濃度標準
事業廢棄物貯存清除處理方法及設施標準

十六、其他資料

參考文獻		
製表者單位	名稱：中國鋼鐵股份有限公司	
	地址/電話：812 高雄市小港區中鋼路 1 號，Tel：(07)8021111	
製 表 人	職稱：工 程 師	姓名（簽章）：胡哲源
製表日期	2022.01.05	
備 註	1. 本安全資料表僅供參考，中國鋼鐵股份有限公司對使用本資料不承擔任何法律責任或提供任何保證。 2. 本安全資料表之提供是基於對本產品的安全及健康危害相關資訊之最佳瞭解，以安全地進行本產品之各項作業及處理。 3. 每位進行本產品之各項作業及處理之人員應先閱讀本安全資料表，瞭解如何進行本產品之各項作業及處理；也應考量本產品與其他製造廠商產品可能之應用。	

測試報告
Test Report

號碼(No.): EKR23702173　　日期(Date): 15-Aug-2023　　頁數(Page) : 1 of 8

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by the applicant as)：

送樣廠商(Sample Submitted By)	:	中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
樣品名稱(Sample Name)	:	冷軋CA產品(COLD PRODUCT(CA))
樣品型號(Style/Item No.)	:	冷軋CA產品

==========

收件日(Sample Receiving Date)	:	31-Jul-2023
測試期間(Testing Period)	:	31-Jul-2023 to 15-Aug-2023

測試需求(Test Requested) :　依據客戶指定，參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP。 (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)

測試結果(Test Results) :　請參閱下一頁 (Please refer to following pages.)

結　論(Conclusion) :　根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP的測試結果符合RoHS 2011/65/EU Annex II暨其修訂指令(EU) 2015/863之限值要求。 (Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.)

報告簽署人/張伯睿 博士/部經理
Ray Chang, Ph.D./ Department Manager
Signed for and on behalf of SGS TAIWAN LTD.
化學實驗室-高雄/Chemical Laboratory-Kaohsiung

PIN CODE: D5FE9B49

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測試報告
Test Report

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

測試部位敘述 (Test Part Description)

No.1 : 銀色金屬 (SILVER COLORED METAL)

測試結果 (Test Results)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
鎘 (Cd) (Cadmium (Cd))	依據IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(According to IEC 62321-5: 2013, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	100
鉛 (Pb) (Lead (Pb))		mg/kg	2	n.d.	1000
汞 (Hg) (Mercury (Hg))	依據IEC 62321-4: 2013+ AMD1: 2017，以感應耦合電漿發射光譜儀分析。(According to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	1000
六價鉻 (Hexavalent Chromium) Cr(VI) (#2)	依據IEC 62321-7-1: 2015，以紫外光-可見光分光光度計分析。(According to IEC 62321-7-1: 2015, analysis was performed by UV-VIS.)	μg/cm²	0.1	n.d.	-
一溴聯苯 (Monobromobiphenyl)	參考IEC 62321-6: 2015自訂方法，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015 in house method, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	n.d.	-
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	n.d.	-
四溴聯苯 (Tetrabromobiphenyl)		mg/kg	5	n.d.	-
五溴聯苯 (Pentabromobiphenyl)		mg/kg	5	n.d.	-
六溴聯苯 (Hexabromobiphenyl)		mg/kg	5	n.d.	-
七溴聯苯 (Heptabromobiphenyl)		mg/kg	5	n.d.	-
八溴聯苯 (Octabromobiphenyl)		mg/kg	5	n.d.	-
九溴聯苯 (Nonabromobiphenyl)		mg/kg	5	n.d.	-
十溴聯苯 (Decabromobiphenyl)		mg/kg	5	n.d.	-
多溴聯苯總和 (Sum of PBBs)		mg/kg	-	n.d.	1000

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Test Report

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
一溴聯苯醚 (Monobromodiphenyl ether)	參考IEC 62321-6: 2015自訂方法，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015 in house method, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
二溴聯苯醚 (Dibromodiphenyl ether)		mg/kg	5	n.d.	-
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	n.d.	-
四溴聯苯醚 (Tetrabromodiphenyl ether)		mg/kg	5	n.d.	-
五溴聯苯醚 (Pentabromodiphenyl ether)		mg/kg	5	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)		mg/kg	5	n.d.	-
七溴聯苯醚 (Heptabromodiphenyl ether)		mg/kg	5	n.d.	-
八溴聯苯醚 (Octabromodiphenyl ether)		mg/kg	5	n.d.	-
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	n.d.	-
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	n.d.	-
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.	1000
鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP))	依據IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(According to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	n.d.	1000
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl phthalate (BBP))		mg/kg	50	n.d.	1000
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl phthalate (DIBP))		mg/kg	50	n.d.	1000
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-(2-ethylhexyl) phthalate (DEHP))		mg/kg	50	n.d.	1000

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中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

備註(Note)：

1. mg/kg = ppm；0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n.d. = Not Detected (未檢出)；小於MDL / Less than MDL
4. "-" = Not Regulated (無規格值)
5. (#2) =
   a. 當六價鉻結果大於0.13 μg/cm²，表示樣品表層含有六價鉻。(The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm². The sample coating is considered to contain Cr(VI).)
   b. 當六價鉻結果為n.d. (濃度小於0.10 μg/cm²)，表示表層不含六價鉻。(The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than 0.10 μg/cm²). The coating is considered a non-Cr(VI) based coating)
   c. 當六價鉻結果介於 0.10 及 0.13 μg/cm² 時，無法確定塗層是否含有六價鉻。(The result between 0.10 μg/cm² and 0.13 μg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination.)
6. 除非另有說明，參照ILAC-G8:09/2019，採用簡單二元(w=0)允收規則進行符合性判定；根據此規則，符合性結果之判定係以測試結果與限值做比較。(Unless otherwise stated , the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.)
7. 申請人提交的產品是用於電機電子設備之原物料。(The product from the applicant submitted is a raw material which is used for electric and electronic equipment.)

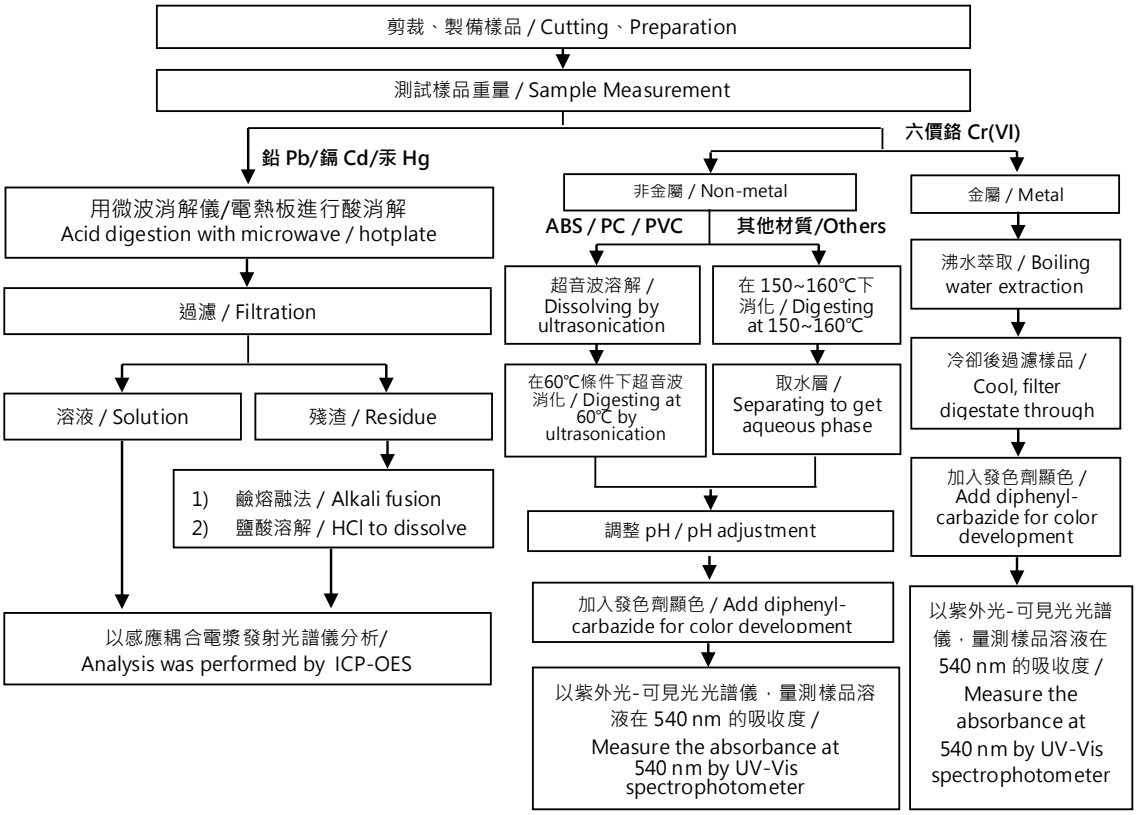
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高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）

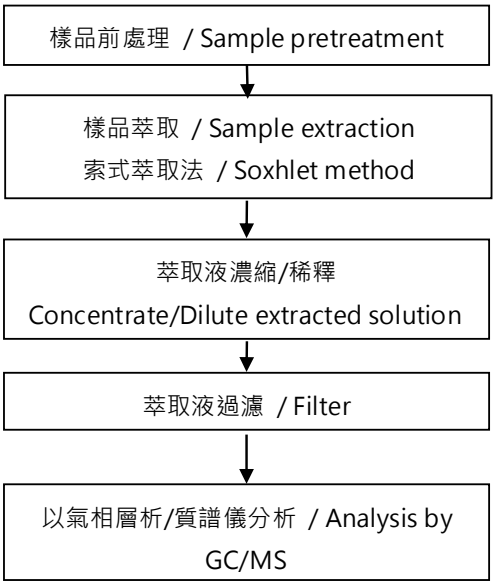
These samples were dissolved totally by pre-conditioning method according to below flow chart. （Cr^{6+} test method excluded）



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多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART

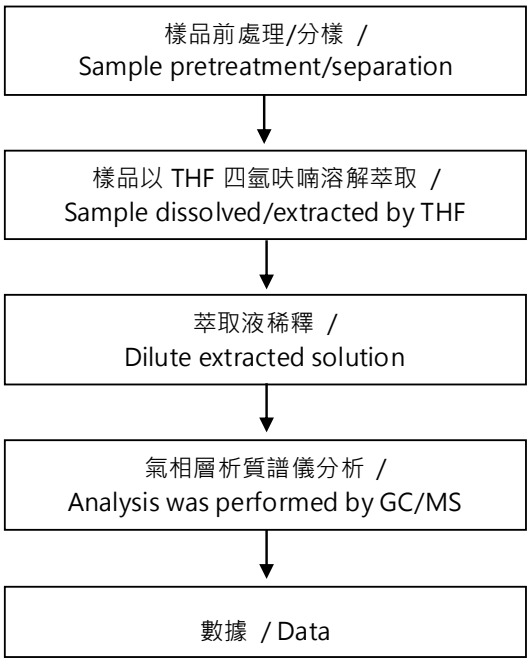


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可塑劑分析流程圖 / Analytical flow chart of phthalate content

【測試方法/Test method: IEC 62321-8】



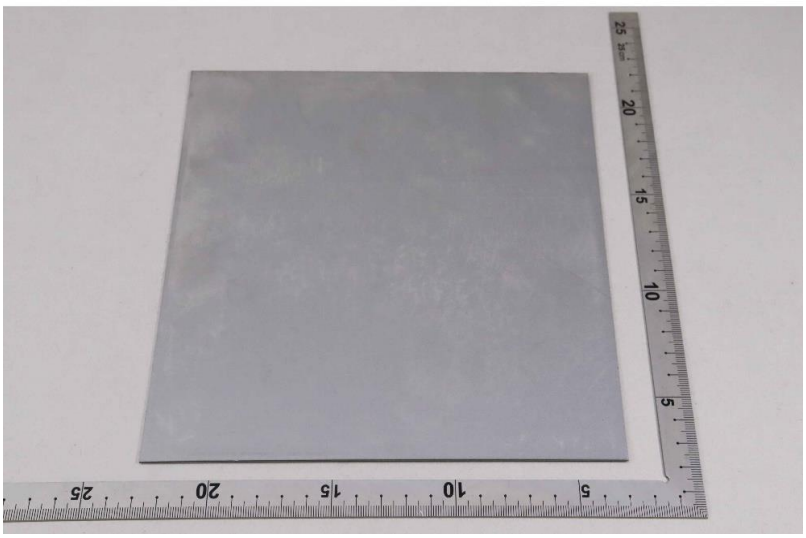
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測試報告
Test Report

中國鋼鐵股份有限公司 (CHINA STEEL CORPORATION)
高雄市小港區中鋼路1號 (1 CHUNG KANG ROAD, HSIAO KANG, KAOHSIUNG 812401, TAIWAN, REPUBLIC OF CHINA)

*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

EKR23702173



** 報告結尾 (End of Report) **

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測試報告
Test Report

號碼(No.): ETR23B05471　　日期(Date): 07-Dec-2023　　

世伸有限公司
新北市樹林區武林街11號

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by the applicant as)：

送樣廠商(Sample Submitted By)　：　世伸有限公司
樣品名稱(Sample Name)　：　鐵片 (白鋅)

==========

收件日(Sample Receiving Date)　：　30-Nov-2023
測試期間(Testing Period)　：　30-Nov-2023 to 07-Dec-2023

測試需求(Test Requested)　：
(1) 依據客戶指定，參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP。 (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)
(2) 依據客戶指定，測試鹵素-氟、氯、溴、碘。 (As specified by client, to test Halogen-Fluorine, Chlorine, Bromine, Iodine in the submitted sample.)

測試結果(Test Results)　：　請參閱下一頁 (Please refer to following pages.)

結　論(Conclusion)　：
(1) 根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP的測試結果符合RoHS 2011/65/EU Annex II暨其修訂指令(EU) 2015/863之限值要求。 (Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.)

Troy Chang / Department Manager
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

CHECK REPORT
PIN CODE: D34046B2

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測試報告
Test Report

世伸有限公司
新北市樹林區武林街11號

測試部位敘述 (Test Part Description)

No.1 : 銀藍色金屬鍍層 (PLATING LAYER OF SILVER-BLUE METAL)
No.2 : 銀藍色金屬 (含鍍層) (SILVER-BLUE METAL (INCLUDING THE PLATING LAYER))

測試結果 (Test Results)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)		限值 (Limit)
				No.1	No.2	
鎘 (Cd) (Cadmium (Cd))	酸洗脫鍍層，參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(IEC 62321-5: 2013 application of modified digestion by surface etching, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	---	100
鉛 (Pb) (Lead (Pb))	酸洗脫鍍層，參考IEC 62321-5: 2013，以感應耦合電漿發射光譜儀分析。(IEC 62321-5: 2013 application of modified digestion by surface etching, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	---	1000
汞 (Hg) (Mercury (Hg))	酸洗脫鍍層，參考IEC 62321-4: 2013+ AMD1: 2017，以感應耦合電漿發射光譜儀分析。(IEC 62321-4: 2013+AMD1: 2017 application of modified digestion by surface etching, analysis was performed by ICP-OES.)	mg/kg	2	n.d.	---	1000
六價鉻 (Hexavalent Chromium) Cr(VI) (#2)	參考IEC 62321-7-1: 2015，以紫外光-可見光分光光度計分析。(With reference to IEC 62321-7-1: 2015, analysis was performed by UV-VIS.)	μg/cm²	0.1	n.d.	---	-

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測試報告
Test Report

號碼(No.): ETR23B05471　　日期(Date): 07-Dec-2023　　

世伸有限公司
新北市樹林區武林街11號

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)		限值 (Limit)
				No.1	No.2	
一溴聯苯 (Monobromobiphenyl)	參考IEC 62321-6: 2015，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.)	mg/kg	5	---	n.d.	-
二溴聯苯 (Dibromobiphenyl)		mg/kg	5	---	n.d.	-
三溴聯苯 (Tribromobiphenyl)		mg/kg	5	---	n.d.	-
四溴聯苯 (Tetrabromobiphenyl)		mg/kg	5	---	n.d.	-
五溴聯苯 (Pentabromobiphenyl)		mg/kg	5	---	n.d.	-
六溴聯苯 (Hexabromobiphenyl)		mg/kg	5	---	n.d.	-
七溴聯苯 (Heptabromobiphenyl)		mg/kg	5	---	n.d.	-
八溴聯苯 (Octabromobiphenyl)		mg/kg	5	---	n.d.	-
九溴聯苯 (Nonabromobiphenyl)		mg/kg	5	---	n.d.	-
十溴聯苯 (Decabromobiphenyl)		mg/kg	5	---	n.d.	-
多溴聯苯總和 (Sum of PBBs)		mg/kg	-	---	n.d.	1000
一溴聯苯醚 (Monobromodiphenyl ether)		mg/kg	5	---	n.d.	-
二溴聯苯醚 (Dibromodiphenyl ether)		mg/kg	5	---	n.d.	-
三溴聯苯醚 (Tribromodiphenyl ether)		mg/kg	5	---	n.d.	-
四溴聯苯醚 (Tetrabromodiphenyl ether)		mg/kg	5	---	n.d.	-
五溴聯苯醚 (Pentabromodiphenyl ether)		mg/kg	5	---	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)		mg/kg	5	---	n.d.	-
七溴聯苯醚 (Heptabromodiphenyl ether)		mg/kg	5	---	n.d.	-
八溴聯苯醚 (Octabromodiphenyl ether)		mg/kg	5	---	n.d.	-
九溴聯苯醚 (Nonabromodiphenyl ether)		mg/kg	5	---	n.d.	-
十溴聯苯醚 (Decabromodiphenyl ether)		mg/kg	5	---	n.d.	-
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	---	n.d.	1000

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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)		限值 (Limit)
				No.1	No.2	
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl phthalate (BBP))	參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	---	n.d.	1000
鄰苯二甲酸二丁酯 (DBP) (Dibutyl phthalate (DBP))	參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	---	n.d.	1000
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-(2-ethylhexyl) phthalate (DEHP))	參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	---	n.d.	1000
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl phthalate (DIBP))	參考IEC 62321-8: 2017，以氣相層析儀/質譜儀分析。(With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.)	mg/kg	50	---	n.d.	1000
氟 (F) (Fluorine (F)) (CAS No.: 14762-94-8)	參考BS EN 14582: 2016，以離子層析儀分析。(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	---	n.d.	-
氯 (Cl) (Chlorine (Cl)) (CAS No.: 22537-15-1)	參考BS EN 14582: 2016，以離子層析儀分析。(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	---	n.d.	-
溴 (Br) (Bromine (Br)) (CAS No.: 10097-32-2)	參考BS EN 14582: 2016，以離子層析儀分析。(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	---	n.d.	-
碘 (I) (Iodine (I)) (CAS No.: 14362-44-8)	參考BS EN 14582: 2016，以離子層析儀分析。(With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	---	n.d.	-

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新北市樹林區武林街11號

備註(Note)：

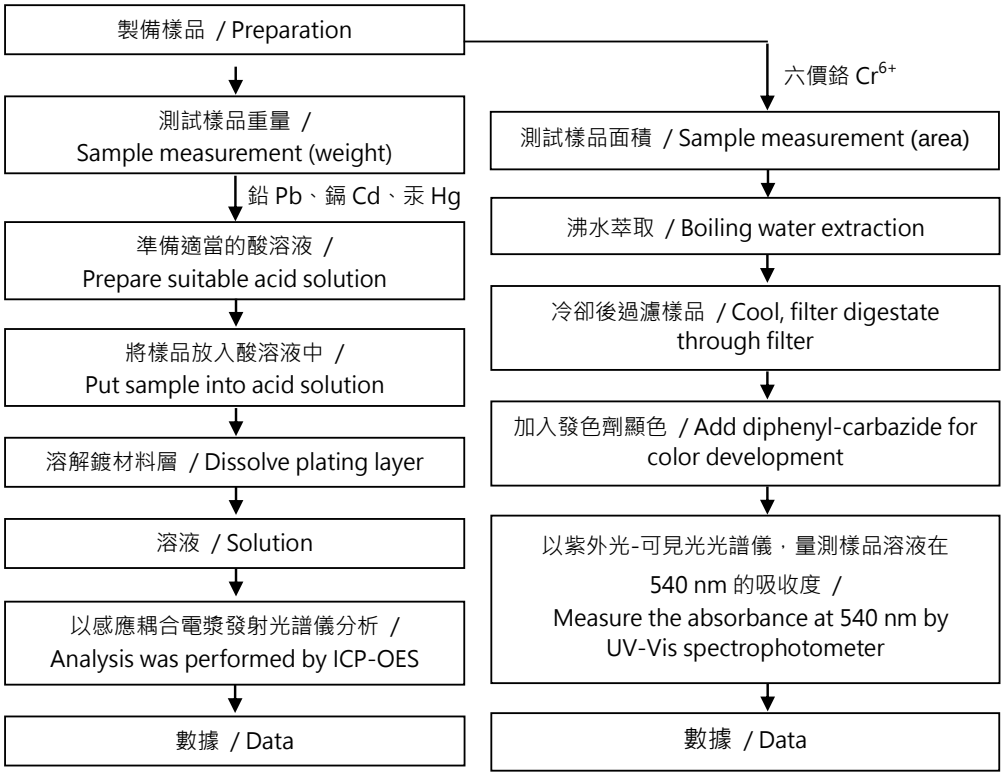
1. mg/kg = ppm；0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n.d. = Not Detected (未檢出)；小於MDL / Less than MDL
4. "-" = Not Regulated (無規格值)
5. "---" = Not Conducted (未測試項目)
6. (#2) =
   a. 當六價鉻結果大於0.13 μg/cm²，表示樣品表層含有六價鉻。(The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm². The sample coating is considered to contain Cr(VI).)
   b. 當六價鉻結果為n.d. (濃度小於0.10 μg/cm²)，表示表層不含六價鉻。(The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than 0.10 μg/cm²). The coating is considered a non-Cr(VI) based coating)
   c. 當六價鉻結果介於 0.10 及 0.13 μg/cm² 時，無法確定塗層是否含有六價鉻。(The result between 0.10 μg/cm² and 0.13 μg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination.)
7. 除非另有說明，參照ILAC-G8:09/2019，採用簡單二元(w=0)允收規則進行符合性判定；根據此規則，符合性結果之判定係以測試結果與限值做比較。(Unless otherwise stated , the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.)

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世伸有限公司
新北市樹林區武林街11號

鍍層重金屬測試流程圖 / Flow chart of stripping method for metal analysis

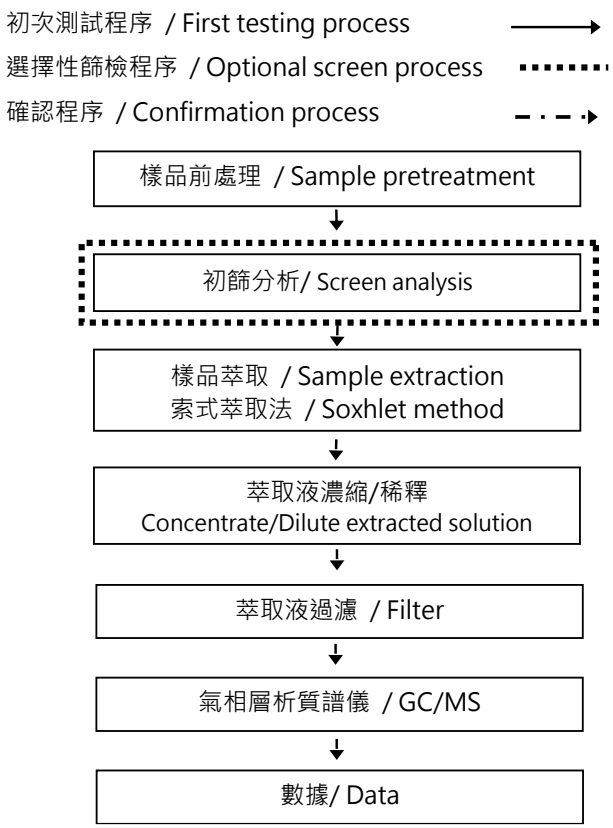
根據以下的流程圖之條件，樣品之外部鍍層已完全溶解。(六價鉻測試方法除外) / The plating layer of samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr^{6+} test method excluded)



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多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBBs/PBDEs

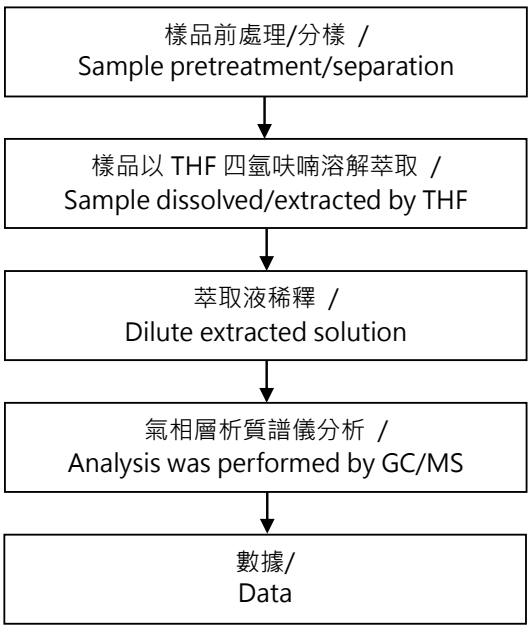


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可塑劑分析流程圖 / Analytical flow chart - Phthalate

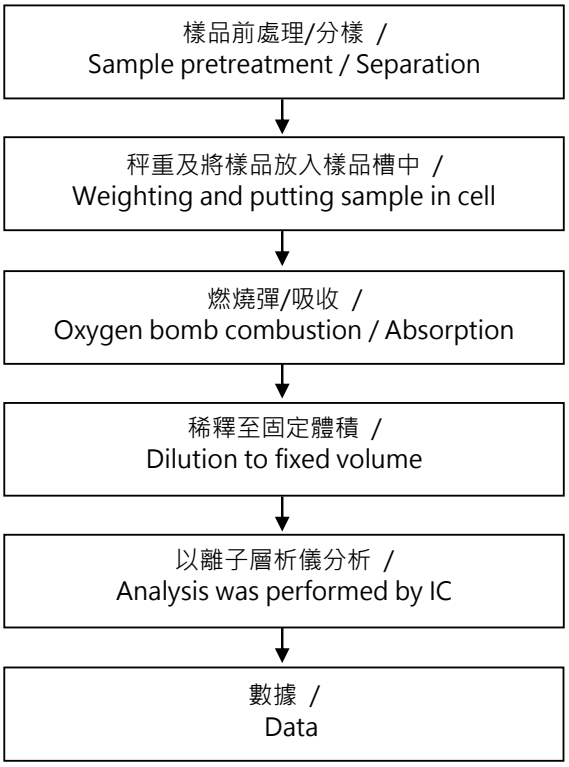
【測試方法/Test method: IEC 62321-8】



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鹵素分析流程圖 / Analytical flow chart - Halogen



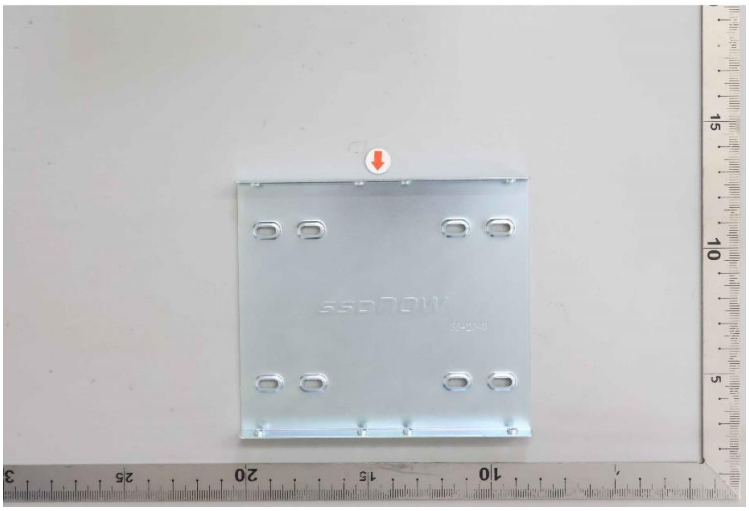
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測試報告
Test Report

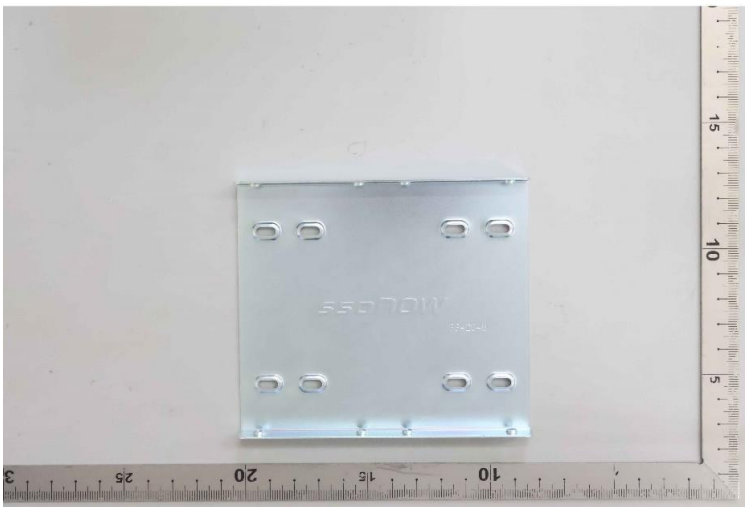
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新北市樹林區武林街11號

*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

ETR23B05471 NO.1



ETR23B05471 NO.2



** 報告結尾 (End of Report) **

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安全資料表　(SAFETY DATA SHEET)

一. 化學品及廠商資料

化學品名稱　：三價鉻藍色鈍化劑

其他名稱　：

建議用途及限制使用　：使用於電鍍或其他金屬加工製程

製造者、輸入者或供應者名稱：世伸有限公司 新北市樹林區武林街 11 號

緊急聯絡電話/傳真電話　：TEL：(02) 2683-9737、FAX：(02) 2683-9931

二. 危害辨識資料

化學品質危害分類　：氧化性液體第 1 級
金屬腐蝕物第 1 級
腐蝕/刺激皮膚物質第 1 級
嚴重損傷/刺激眼睛物質第 1 級
特定標的器官系統毒物質~重複曝露第 2 級

標示內容

象徵符號　：



警示語　：危險！

危害警告訊息　：如吞下會有害。含有造成受侵襲器官損害的物質。

危害防範措施

預防　：戴上防護手套。穿戴眼鏡/臉防護設備。穿上防護衣。在使用產品時禁止飲食和吸煙，處理完後將手徹底洗淨。

應變　：立即尋求毒藥中心或醫生的幫助。如吞下：沖洗口腔，請勿催吐。皮膚(或頭髮)接觸：立即脫掉受污染的衣服，用水或沖淋器沖洗皮膚，在重複使用前洗淨被污染的衣物。眼睛接觸：立即用水沖洗數分鐘，如果方便的話，取出任何受污染的隱形眼鏡，連續沖洗。吸入：移至空氣新鮮處，讓其保持舒服以及呼吸通暢的姿勢。

儲存　：加鎖儲存。

廢棄　：產品和容器的處置應符合國際、國家、地方以及當地相關的法律規範。

三. 成分辨識資料

混合物

危害成分之中英文名稱	CAS NO.	濃度
複合添加物		20
硝酸	7697-37-2	< 10

就目前供應商所知與所用的濃度，沒有任何對健康或環境有害的成分或附加成分，而需要在此節報告的。

四. 急救措施

吸入：立即尋求醫療救護。將患者移至空氣新鮮處。如果懷疑仍有氣體出現，救難人員戴上適合的面具或自給式呼吸裝置。讓此人保持溫暖並休息。如果沒有呼吸、呼吸不規則或呼吸停止，請由訓練有素人員進行人工呼吸或提供氧氣，對提供口對口人工呼吸的人員會有危險。如果昏迷，放置恢復姿勢並立即尋求醫療照顧。維持呼吸道暢通，鬆開緊身衣物，例如：領口、領帶、皮帶或腰帶。

食入：立即尋求醫療救護。用水洗淨口腔。若有假牙，請拿掉。將患者移至空氣新鮮處。讓此人保持溫暖並休息。如物質遭吞下但受感染人仍有知覺，可給予小量水飲用，如患者感到噁心就應停止，因嘔吐會有危險。請勿雖催吐，除非有專業人醫療人士指導。如果發生嘔吐，將頭放低以避免嘔吐物進入人肺中。化學灼傷必須立即找醫生醫治。切勿給失去意識者任何口服物。如果昏迷，放置恢復姿勢並立即尋求醫療照顧。維持呼吸道暢通，鬆開緊身衣物，例如：領口、領帶、皮帶或腰帶。

皮膚接觸：立即尋求醫療救護。以大量的水沖洗遭汙染的皮膚。脫去被污染之衣物及鞋子。在移動前用水徹底沖洗受感染的衣物，或穿戴手套。繼續清洗至少 10 分鐘。化學灼傷必須立即找醫生醫治。在重複使用前洗淨衣物、鞋子。

眼睛接觸：立即尋求醫療救護。以大量的水沖洗眼睛，並經常打開上下眼瞼。確認並取下隱形眼鏡。繼續清洗至少 10 分鐘，化學灼傷必須立即找醫生醫治。

最重要症狀及危害效應

吸入：吸入有毒。會產生對呼吸系統極具刺激或腐蝕性的氣體、蒸氣或粉塵。

食入：食入有毒。可能導致口腔、喉嚨、胃部灼傷。

皮膚接觸：對皮膚有嚴重腐蝕性。可致嚴重灼傷。

眼睛接觸：對眼睛有嚴重腐蝕性。可致嚴重灼傷。

對急救人員之防護：當會有任何人身危險或尚未接受適當訓練時，不可採取行動。對提供口對口人工呼吸的人員會有危險。

對醫師之提示：無特定治療方式。根據症狀治療，如已食入或吸入大量毒物，立即接洽毒物處理專家。

五. 滅火措施

適用滅火劑

適用的　　：使用噴水。

不適用的　　：不適用乾粉，泡沫滅火器，二氧化碳。

滅火時可能遭遇之特殊危害：與可燃物混合會發生爆炸。此物質會增加燃燒危險並會助燃燒。 如有火災，撤離所有人員離開災區及鄰近處，以迅速隔離現場。當會有任何人身危險或尚未接受適當訓練時，不可採取行動。

危險性之燃燒產物　　：分解後的成分可能包含下列物質：
氮氧化物
金屬氧化物

特殊滅火程序　　：如有火災，撤離所有人員離開災區及鄰近處，以迅速隔離現場。當會有任何人身危險或尚未接受適當訓練時，不可採取行動。

消防人員之特殊防護設備　：消防隊員應穿戴適當防護設備與正壓全面是自給式呼吸裝置(SCBA)。

六. 洩漏處理方法

個人應注意事項　　：當會有任何人身危險或尚未接受適當訓練時，不可採取行動。撤離周圍區域。勿讓不必要或未採取保護措施的人員進入。勿碰觸或走過洩漏物質。隔離所有引火源。在危險區域嚴禁明火、抽煙或火花。避免吸入蒸氣或霧氣。提供充足的通風設備。在通風設備不足時，請戴上適當的呼吸防護具。穿戴適當的個人防護設備(參閱第 8 節)。

環境注意事項　　：避免散佈溢出物與溢流並避免接觸土壤、水道、排水管與水溝。如果產品引起環境汙染（陰溝、水道、泥土或空氣），須通知有關單位。

清理方法

大量洩漏　　：將容器移離洩漏區域。防止進入下水溝、水道、地下室或密閉區域。真空或清掃物質，並置於有指定標籤的廢棄物容器中。由經核准的廢棄物處裡承包商來處置。注意：請參閱第一節的緊急接觸須知及第 13 節的廢棄物處理。

小量洩漏　　：將容器移離洩漏區域。真空或清掃物質，並置於有指定標籤的廢棄物容器中。由經核准的廢棄物處裡承包商來處置。

七. 安全處置與儲存方法

處置　　：穿戴適當的個人防護設備（參閱第 8 節）。嚴禁在處理、儲存

此物質的區域中飲食與抽煙。工作人員應在洗手與臉後方可飲食與抽煙。勿攝食。如果在正常使用下，此物質具有呼吸危險，請僅在有適當通風或呼吸防護具時使用。儲存在原有容器或經過許可有相容性材質的容器內。不使用時請蓋緊。遠離可燃物容器含有產品殘餘物，可能有危險性。勿重複使用容器。

儲存：儲存在下列溫度間：5-30℃（41-86°F）。按照當地法規要求來儲存。儲存在原容器中，避免陽光直射。儲存在陰涼、乾燥及通風良好處，遠離不相容物（見第 10 節）、食物及飲料。與還原劑及可燃性物質分開。使用容器前，保持容器關緊與密封。已打開的容器必須小心的再封好並保持直立以防止漏出。勿儲存於無標籤之容器中。為避免洩漏導致環境污染，包裝選用要適當。

八. 暴露預防措施

工程控制

職業曝露管制：僅在充足的通風設備中使用。如使用者操作時會產生粉塵、薰煙、蒸氣或煙霧。使用處理圍欄、局部排氣設備或其他工程控制方法，以確保工作人員由空氣中之污染暴露低於任何建議或法定限制之下。

建議監控程序：如果這個產品含有具容許濃度的成份，則可能需要設置人員，工作場所空氣或生物監控以測定通風或其他管理措施的有效並且/或者決定是否有使用呼吸防護器材的必要。對由吸入化學試劑所造成的暴露的評估方法和對測定有害物質方法的國家教導文件，應參考歐洲標準 EN 689。

環境暴露管制：應該檢查從通風或製程設備而來的排放，以保證他們符合環境保護法規的要求。在某些情況下，煙霧洗滌器、過濾器或對製程設備做工程上的修改是必要的，以將排放降低到可接受的水平。

個人防護設備

呼吸防護：若危險評估認為有必要則需使用一通過標準，適合的空氣濾清或供氣式呼吸防護具。需根據已知或預期的暴露程度、產品危險性以及選定之呼吸防護具的安全工作限制，來選擇呼吸的護具。

手部防護：當處理化學產品時，若危險評估認為有必要則須隨時穿戴符合標準、抗化學品、不滲透的手套。

眼睛防護：若危險評估認為需要避免暴露於液體潑濺、氣霧、氣體或粉塵時，請使用一個符合標準的安全眼鏡。

皮膚保護：在處理此產品前，個人身體的防護設備應根據工作性質與涉及之危險程序來選擇並應經過專家的批准。

衛生措施：處理化學產品後，在飲食、抽煙與使用廁所前及收工後須徹底

沖洗雙手、前臂與臉。應用適當的技術移除可能遭汙染的衣物。重複使用前請先清洗受污染之衣物。確保眼睛沖淋器與安全淋浴間座落在靠近工作站的地方。

九. 物理及化學性質

物理狀態	：液體
顏色	：綠色
氣味	：些微
PH	：< 1.0
沸點	：無法取得
熔點	：無法取得
閃火點	：無法取得
分解溫度	：無法取得
爆炸界限	：無法取得
自燃溫度	：無法取得
密度	：1.10-1.20
蒸氣壓	：無法取得
蒸發率(乙酸丁酯=1)	：無法取得
粘度	：無法取得
辛醇/水份配係數(LogKow)	：無法取得
溶解度	：無法取得
物理化學說明	：極易溶解於下列物質中：冷水
揮發性【%】	：無法取得

十. 安定性及反應性

安定性	：本產品很穩定。在正常狀況下儲存和使用，有害的聚合不會發生。
特殊狀況下可能之危害	
反應	：無法取得。
應避免之狀況	：避免與酸性氧化劑及酸性鹽接觸。
應避免之物質	：無特定資料。
危害分解物	：在正常保存及使用情況下，不應產生危險的分解產物。

十一. 毒性資料

症狀

吸入	：無特定資料。
食入	：負面的症狀可能包括以下所列：胃痛。

皮膚接觸　　：負面的症狀可能包括以下所列：疼痛或刺激發紅、可能引起皮膚起泡。

眼睛接觸　　：負面的症狀可能包括以下所列：疼痛、起淚水發紅。

環境危害　　：已知無重大影響或嚴重危險。

潛在慢性健康影響

慢性效應　　：無已知重大影響或嚴重問題。

致癌性　　：無已知重大影響或嚴重問題。

突變　　：無已知重大影響或嚴重問題。

致畸胎性　　：無已知重大影響或嚴重問題。

孩童發育影響　　：無已知重大影響或嚴重問題。

生育能力影響　　：無已知重大影響或嚴重問題。

十二.生態資料

持久性及降解性　　：無法取得

環境影響　　：對水生生物有毒，對水生環境可能引起長期有害作用。

其他不良影響　　：無已知重大影響或嚴重危險。

十三.廢棄處置方法

廢棄處置方法　　：應儘可能地避免或減少廢物的產生。經由核准的廢棄物處理承包商來處置剩餘物和非可回收的產品。處置此產品，溶劑與任何副產品都應隨時遵從環境保護與廢棄物處置的法規要求並遵從地方區域當局的要求。避免散佈溢出物與溢流並避免接觸土壤、水道、排水管與水溝。

與當地或地區機構諮詢

十四.運送資料

法規資料	聯合國編號	適當運輸名稱	類別	PG 標籤	其他資訊
DOT 分類	未管制				
IMDG 分類	未管制				-
IATA-DGR 分類	未管制				
UN 等級	未管制				

十五.法規資料

適用法規

1. 道路交通安全規則.
2. 職業安全衛生法及其設施規則
3. 特定化學物質危害預防標準
4. 毒性化學物質管理法及其細則
5. 危害性化學品標示及通識規則
6. 勞工作業場所容許暴露標準
7. 事業廢棄物儲存清除處理方法及設施標準
8. 台灣鐵路局危險品裝卸運輸實施細則

十六.其他資料

參考文獻　：1.CHEMMATE 資料庫
2.危險品化學物質中文資料庫，環保署。

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製表日期　：109 年 12 月 3 日